

Work Order ID 122985

March-03-15 10:16:02 AM

Accept Report
122985

Page 1

Item ID: 646.3512

Revision ID:

Item Name: Strut

Start Date: 7/29/14

Required Date: 7/29/14

Reference:

Start Qty: 10.00

Req'd Qty: 10.00

10

10

Accept

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Approvals:

Process Plan: *W*

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

646.3500

N/C 3

110

0.00

110

Waterjet

FLOW CNC Waterjet

Memo

0.00

1-Cut 646.3500 plate 2.00"X 2.00" as per Dwg

Dwg Rev: *N/C 3*

Prog Rev: *N/C 3*

2-Deburr if necessary

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Quality Control

Memo

0.00

(14)

DC 15/03/03

(14)

DC 15/03/03

Page 2

[illegible]

DQA:

Date:

JAN 3 2017



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed

Date:

DEC 22 2016

Work Order update only

☐

Work Order: <u>122985</u> Part No. <u>646.3512</u> NCR No. <u>16-6200</u>		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☒ Composite ☐ Supplier ☐							
Date: <u>16-10-31</u>		Step #: <u>140</u>		QTY Effective: <u>5</u>			MRB (QSI042) Approval DAS 9 9-89 <u>16-10-31</u>				
Description Work Order Deviation				Disposition				Completed By			
parts where cut too short. & C. boling. strut is cut and bend by hand.				Scrap + destroy / no replace				Lead hand / Supervisor Approval Verification DAS 9 9-89 <u>16-10-31</u>			
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☒ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ Manufacturing Process ☐ Misidentified ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved ☐ Crushing ☐ Countersink ☒ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Mislabeled ☐ Finish ☐ Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐						OTHER :	

Work Order ID 122985

March-03-15 10:16:02 AM

122985

Page 3

Item ID: 646.3512

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Revision ID:

Stop ***NS2***

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Start Date: 7/29/14 Start Qty: 10.00

10

Cust Item ID:

Required Date: 7/29/14 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

Weld per dwg A/R S.S. rod Batch: 134442

0.00

160

Large Fab

Memo

0.00

Large Fab

Weld tube to plate as per dwg. DT9868
Weld end were tube is punch.(10) 9 DT9868
16/10/24

170

QC9- Inspect visual per QSI004- Fusion Welds

0.00

170

QC

Memo

0.00

Quality Control

(9) 161031

180

QC5- Inspect part completeness to step on W/O

0.00

180

QC

Memo

0.00

Quality Control

(9) 161031

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Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

220

0.00

220

SprayPaint

Memo

0.00

Spray Painting

Prime as per dwg (see note 3)

Batch: 134100

9

9-11-16

230

QC14- Inspect Spray Paint

0.00

230

QC

Memo

0.00

Quality Control

9

DAS
38
NOV 11 2016

240

0.00

240

Packaging

Memo

0.00

Packaging

***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND
REV***

CCK108A

9

NOV 14 2016

DAS
6
9-89

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March-03-15 10:16:02 AM

122985

Page 5

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Customer:

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Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

250

QC21- Final Inspection - Work Order Release

0.00

250

QC

Memo

0.00

Quality Control

DAS
21
9-89

NOV 15 2016

DAS
21
9-89

NOV 14 2016

Picklist Print

March-03-15 10:16:02 AM

Page 1

Work Order ID: 122985

122985

Parent Item: 646.3512

646.3512

Parent Item Name: Strut

Start Date: 7/29/14

Required Date: 7/29/14

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A 12.10.19 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304S16GA

Purchased

No

sf

506.5051

0.28

M304S16GA

DC 15/03/03

304/316 Sheet .063

Location

Loc Qty

Loc Code

MAT019

506.5051

m131384

216.5051

m131503

290

.6

M304TR0.500W.049

Purchased

No

f

245.3170

10.52632

M304TR0 500W 049

EL 16-4-25

304 RD Tube .500 x .049W

Location

Loc Qty

Loc Code

GA002

245.317

M127937

11

M128833

234.317

~~124507 10~~

132 872 -10

12.5'

12285

FIRST ARTICLE INSPECTION CHECKLIST

[illegible]

Measured by: <i>De</i>	Audited by: <i>38</i>	Preliminary Approval:
Date: <i>15/03/03</i>	Date: <i>MAR 03 2015</i>	Date:

Rev	Date	Change	Revised by	Approved
A	14.06.25	New Issue	KJ	

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04274

SHEET 1 OF 1

DWG NO. 646.3500

REV: NC

PREPARED BY J. SOTO

DATE: 12/02/2013

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: STRUT

APPROVED BY:

ENGR *[Signature]*

MFG *[Signature]*

QC *[Signature]*

EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD
R-REVISE
C-CREATE
D-DELETE

REASON: REVISED DELTA NOTE 1 & 2.

SHEET 1, ZONE A1 IS:

IS

NOTES:

- 1 MATERIAL: AISI 304/ 316 SS SHEET .062 THK
(REF DART SPEC. M304S16GA)
- 2 MATERIAL: AISI 304/316 SS 0.500 OD X 0.049 WALL
(REF DART SPEC. M304TR0.500W0.049)
ENSURE SEAMLESS TUBE IS USED
- 3 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2
COLOR BLACK;
CARDINAL 4860-50 PRETREATMENT PRIMER
PRIME IAW MIL-P-23377J TYPE I CLASS N
4. DEBURR AND BREAK ALL SHARP EDGES
5. WELDS IAW MIL-STD-2219.
TIG WELD WITH FILLER ROD

DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

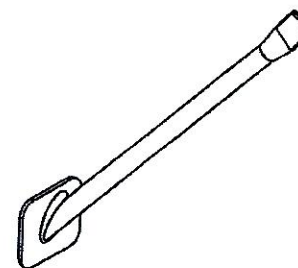
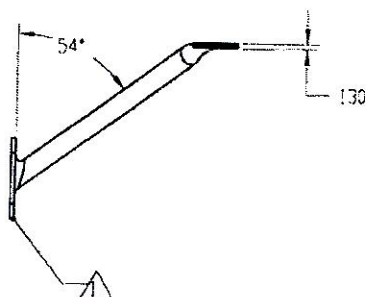
☐ YES ☒ NO

APICAL
INDUSTRIES, INC.

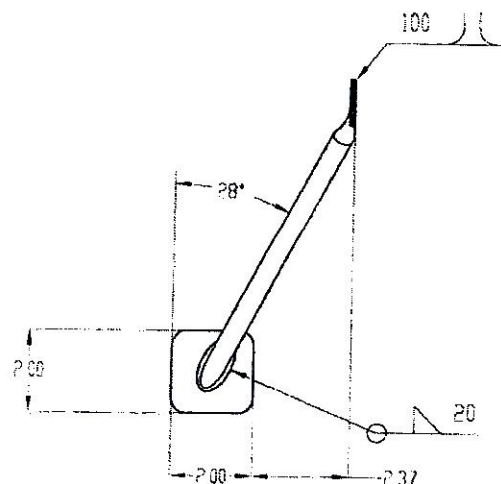
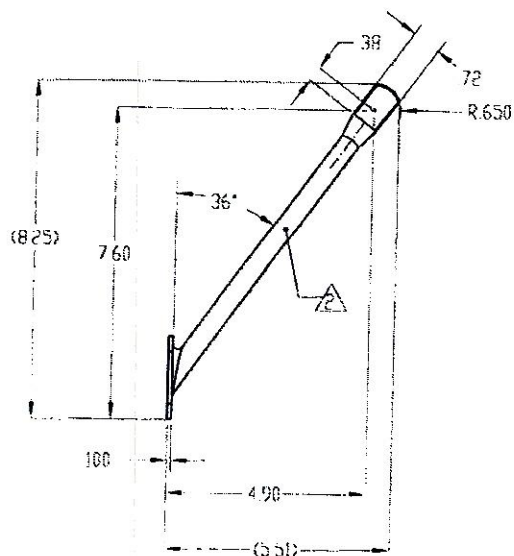
ENGINEERING CHANGE NOTIC. NO.		02440		SHEET 1 OF 1	
DWG NO. 646.3500		REV: NC		PREPARED BY S. HUFF	DATE 06/08/09
DWG TITLE:		STRUT			
APPROVED BY: ENGR	MFG	QC	EFF. CURRENT ORDER AND STOCK		
REASON: REVISED GEOMETRY TO ACCOMMODATE NEW EXISTING AIRCRAFT PROVISIONS					

TRANSACTION CODES (TC)
A-ADD C-CREATE
R-REVISE D-DELETE

SHEET 2 IS:



646.3512 SHOWN
646.3513 OPPOSITE



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

02197

SHEET 1 OF 1

DWG NO. 646.3500

REV: N/C

PREPARED BY

S. HUFF

DATE: 01/05/09

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE:

STRUT

APPROVED BY:

ENGR

MFG

QC

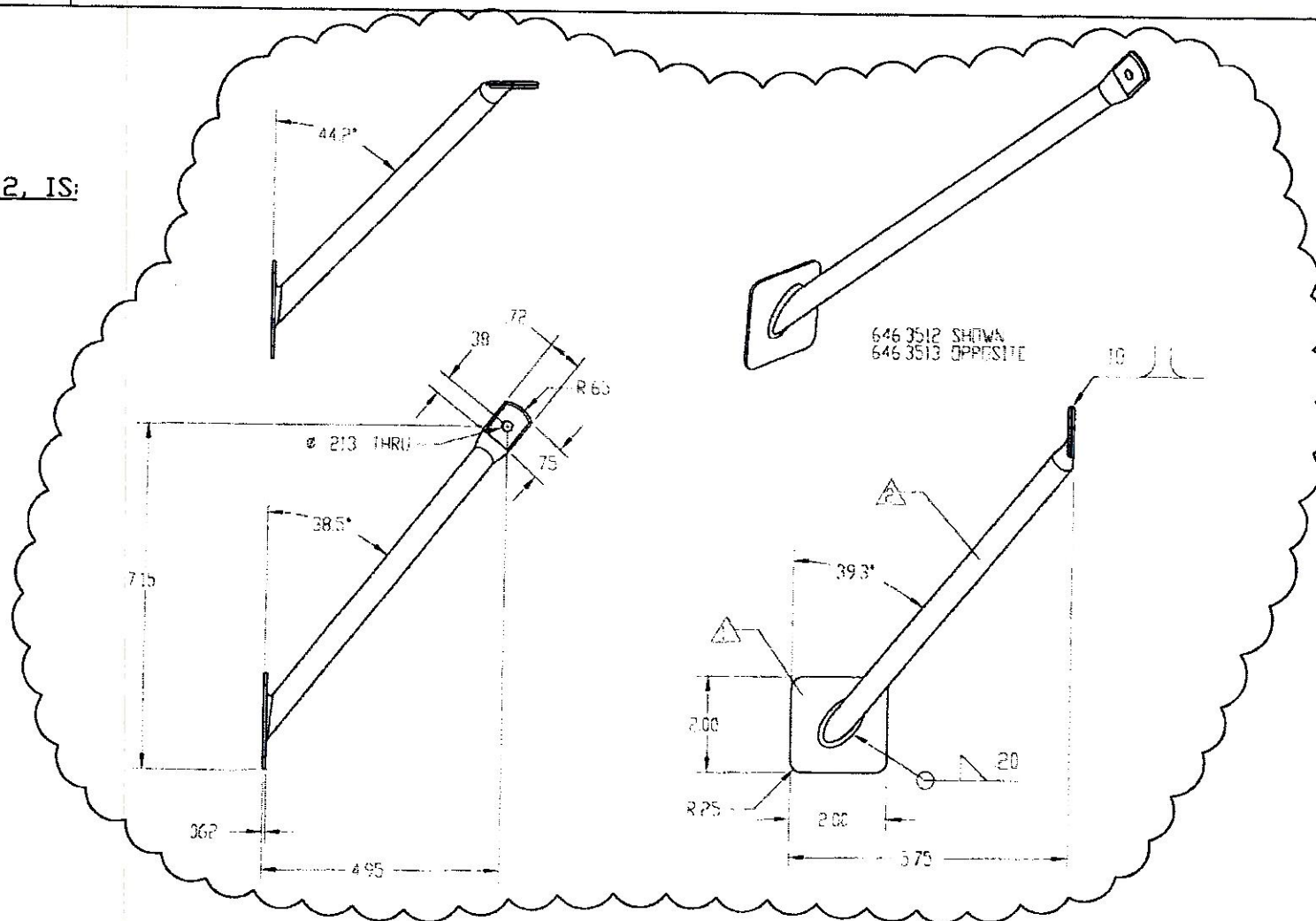
EFF:

NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED ANGLE OF 646.3512 & 646.3513 FOR BETTER FITMENT

SHEET 2, IS:



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

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NOTES:

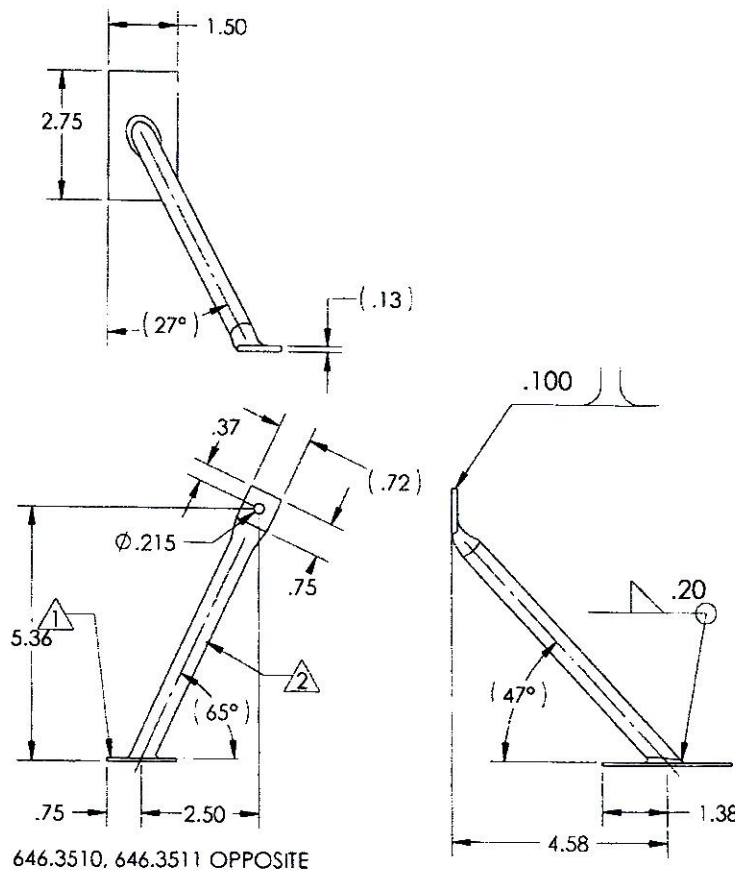
1 MATERIAL: 6061-T6 ALUMINUM IAW AMS-QQ-A-250/11;
.062" THK.

2 MATERIAL: 6061-T6 ALUMINUM IAW AMS-WW-T-700/6
.500" OD; .062" WALL THK

3 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2
COLOR BLACK;
CARDINAL 4860-50 PRETREATMENT PRIMER
PRIME IAW MIL-P-23377J TYPE I CLASS N

4. DEBURR AND BREAK ALL SHARP EDGES

5. WELDS IAW MIL-STD-2219.
TIG WELD WITH FILLER ROD



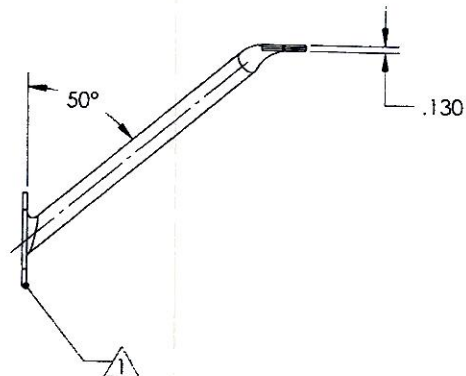
646.3510 SHOWN
646.3511 OPPOSITE

UNINCORPORATED ECN(s)

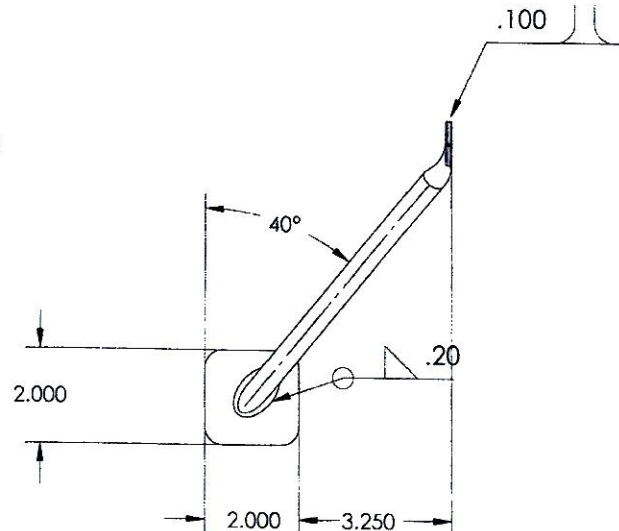
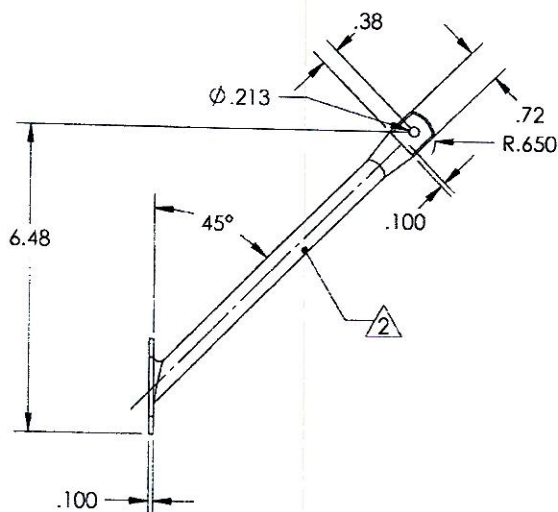
02197, 02440, 04274

QTY	FIND #	PART #	DESCRIPTION	MATL	SPEC
		646.3513	STRUT	△△	△
		646.3512	STRUT	△△	△
		646.3511	STRUT	△△	△
		646.3510	STRUT	△△	△
PARTS LIST					
ORIGINAL DATE: 02-24-88					
DRAWN BY: J. ANDERSON					
CHECKED BY: P. BRADY					
APPROVED BY: [Signature]					
CONTRACT NO: 66					
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS. DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS. DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS.					
NEXT ASSY (S)			APICAL INDUSTRIES		
646.4000			2608 TEMPLE HEIGHTS DR.		
			OCEANSIDE, CA 92056-3512		
			(760) 724-5300		
			STRUT		
			SCALE: NONE		
			SHEET 1 OF 2		

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646.3512 SHOWN
646.3513 OPPOSITE



ORIGINAL DATE: 08/21/06 MOSES: 08/21/06 DRAWN BY: CHECKER E. ANDERSON P. BRAYG DRAWING APPROVAL: P. BRAYG 08/21/06 CORRECTIONS:		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
UNITS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS: .01 3 PLACE DECIMALS: .001 ANGLES: ± .5°		LIT CAD CODE: 07M26 B 07M26	DWG NO: 646.3500 SCALE: NONE
		PER: N/C	SHEET 2 OF 2